

Application No: 10/663,024

Docket No.: Q201-US1

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REMARKS

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Claims 1, 9, 13 and 30 are currently amended. Claims 2-3, 6, 8, 10-12, and 34-44 are canceled. Claims 4-5, 7, 14-18, 21-29, and 31-33 were previously presented. Claims 19-20 are withdrawn. New claims 45-49 are added. Accordingly, claims 1, 4-5, 7, 9, 13-18, 21-33, and 45-49 are pending examination.

Election Requirement

The Examiner has withdrawn prior claims 42-44 from examination for being drawn to a non-elected species. This withdrawal is not proper.

The Office Action argues that these claims are drawn to the same subject matter as withdrawn claims 10-12. This characterization is not correct. Prior claims 10-12 limited the polysiloxane of claim 1 to the structure specified in claim 10. In contrast, prior claims 42-44 specified the structure of a second polysiloxane **IN ADDITION TO** the polysiloxane of claim 1. Because the prior claim 42 did not narrow the structure of the claim 1 polysiloxane as was done by prior claim 10, claim 42 was not directed to the same subject matter as withdrawn claims 10-12. For this reason alone, the withdrawal of claims 42-44 from examination was not proper.

The withdrawal is also not proper because prior claim 42 is directed to the species that was elected by the Applicant. In order for two claims to be directed to different species, they must be mutually exclusive. However, prior claim 42 depended from prior claim 8 and accordingly narrowed prior claim 8 by adding an additional compound to the electrolyte of prior claim 8. Since prior claim 42 narrowed prior claim 8, prior claims 8 and 42 cannot be mutually exclusive and accordingly cannot be directed to different species.

Because the withdrawal of prior claims 42-44 from examination was not proper, the Applicant has canceled claims 42-44 and re-introduced them as claims 47-49. The Applicant notes that independent claim 1 is amended to include subject matter from prior claim 8. Since prior claim 42 depended from claim 8 and claim 8 is now at least partially incorporated into claim 1, new claim 47 depends directly from claim 1.

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Rejection Under 35 USC §112(b)

Claim 8 stands rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. As noted above, subject matter from claim 8 is incorporated into claim 1. As a result, the Applicant addresses this rejection in light of claim 1.

The Office Action argues that it is not possible for the variable representing the number of repeating units in the polysiloxane backbone, "n," to be equal to 1. In response, the Applicant has removed the lower limit of the variable "n" by amending to claim 1 to recite that the variable "n" can be up to 100. However, the lower range of "n" is still limited by the recitation that the formula represents a "polysiloxane." Since a polysiloxane is a polymer and since the variable "n" represents the number of repeating units in the polymer, the lower limit of n is the number of repeating units necessary for the illustrated compound to qualify as a polysiloxane.

Similarly, the Applicant has amended the range for the variable "x" in claim 8 to specify that the variable "x" is up to 30. Again, the lower range of the variable "x" is limited because claim 1 requires that the sidechain includes a polyalkylene oxide moiety. Since a polyalkylene oxide is a polymer and since the variable "x" represents the number of repeating units in the polymer, the lower limit of "x" is the number of repeating units necessary for the illustrated compound to qualify as a polyalkylene oxide.

Rejection of Independent Claim 1

As noted above, claim 1 is amended to include subject matter from claim 8. Accordingly, the Applicant addresses the rejection of claim 8 below. Claim 8 stands rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,858,351 (Miura) in view of U.S. Patent Application No. 2006/0106187 (Kennedy).

Miura does not teach a cyclic polysiloxane with the sidechain structure set forth in claim 1. The only place where Applicant can find Miura teaching a cyclic polysiloxane is at C7, L20-37. This portion of Miura teaches that the side chains (R^{10} , R^{11} , R^{12}) can be an alkoxy group such as an ethoxy group. Alkoxy sidechains do not teach the claim 1 sidechains because Miura's sidechains do not include CH_2 groups linked directly to a silicon on a main chain of the polysiloxane and also linked directly to an oxygen in a polyalkylene

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oxide moiety as is required by the claim 1 structure. As a result, the structure disclosed at C7, L20-37 does not teach a polysiloxane with the sidechains recited in claim 1.

Additionally, Miura teaches that the cyclic polysiloxane set forth at C7, L20-37 can cross-link the unit (iii) of C3, L60 by reacting the silicon hydride groups (-Si-H) in the cyclic polysiloxane with an ethylenically unsaturated group that serves as the functional group (R2) of the unit (iii) as disclosed at C6, L66-67 in view of C4, L20. If the Examiner is arguing that this cross-linking reaction inherently results in a cyclic polysiloxane according to claim 1, the Examiner is respectfully requested to provide extrinsic evidence showing that the claim 1 sidechain structure necessarily results from the cross-linking reaction in accordance with MPEP §2212. In the absence of the requested extrinsic evidence, Miura does not teach a cyclic polysiloxane with the sidechain structure recited in claim 1.

The Applicant has reviewed Kennedy and has been unable to find where Kennedy teaches the sidechain structure recited in claim 1. Accordingly, the Applicant respectfully requests the location where Kennedy teaches the claimed sidechain structure. In the absence of this teaching and in the absence of the requested extrinsic evidence, Miura in view of Kennedy does not teach or suggest an electrolyte having the polysiloxane structure set forth in claim 1 and claim 1 is patentable over the cited art.

Rejection of Claims 4-5, 7, 9, 13-18, 21-33, and 45-49

Claims 4-5, 7, 9, 13-18, 21-33, and 45-49 each depend directly or indirectly from Independent claim 1. Since independent claim 1 is believed to be in condition for allowance, these claims are also believed to be in condition for allowance.

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CONCLUSION

The Examiner is encouraged to telephone the undersigned with any questions.

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Respectfully submitted,



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